Abstract of the Disclosure

Amend the Abstract of the Disclosure as follows:

A method of controlling data packet transmission between ~~in~~ a power line communication (PLC)~~-based~~ local area network (LAN) ~~includes providing a PLC central coordinator in the PLC LAN for managing allocation of PLC LAN resources. The method of the invention also includes providing, for any packet traversing the PCL LAN, a destination station MAC address, a source station MAC address, and a temporary equipment identifier (TEI) for the transmitting PLC station~~ and a non-PLC LAN uses bridging devices on the PLC LAN that store a temporary equipment identifier (TEI) for each PLC station and PLC bridging device. A data packet from a non-PLC station has a non-PLC media access control (MAC) header that contains MAC addresses for the source and destination stations. A data packet from a PLC station has a PLC MAC header that contains a ConnectionID with the TEIs for the source station and destination bridging device. For a packet from a non-PLC station, the bridging device replaces the MAC addresses for the source and destination stations with a ConnectionID and then transmits the packet on the PLC LAN. For a packet from a PLC station, the bridging device replaces the ConnectionID with the MAC addresses for the source and destination stations and then bridges the packet to the non-PLC LAN.